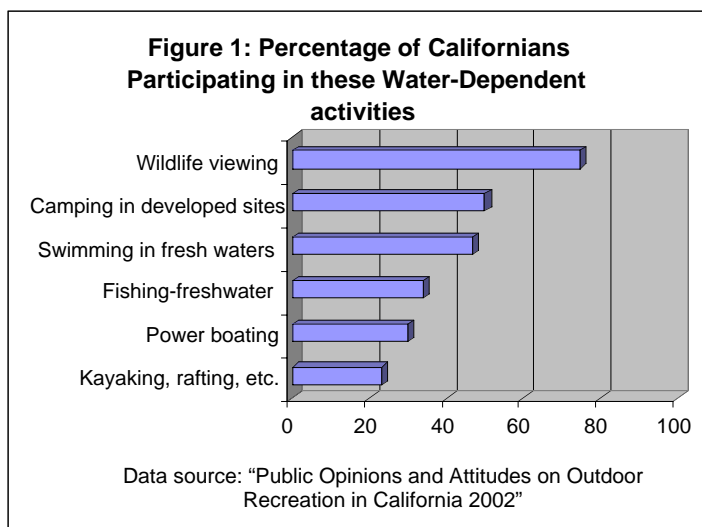


Water-Dependent Recreation

Water-dependent recreation includes a wide variety of outdoor activities that can be divided into two categories. The first category includes fishing, boating, swimming, rafting and other activities that can only occur on water surfaces such as fresh-water lakes, reservoirs, and rivers. The second category includes those outdoor recreation activities where the experience sought and the aesthetic appeal are greatly enhanced by the presence of water features but do not necessarily require actual use of the water resource. These activities are often nature-based and include wildlife viewing, picnicking, camping and hiking.



Water-dependent recreation is included among the water management strategies because recreation is an important consideration for water managers. Water management, and water infrastructure, can have significant effects on recreational opportunities. By considering recreation during the planning process, water managers can take advantage of opportunities to enhance recreation, and can guard against actions that would impair or limit recreation.

The Davis-Dolwig Act was passed by the California Legislature in 1961. This act established state policy regarding recreation and fish and wildlife enhancement at state-built water facilities, and specified the responsibilities of state agencies under the act. Compliance with the provisions of this act will be an important consideration for state water managers as new facilities are built.

The management of lands and water resources by the state, including those associated with state water projects, invokes an implied principle of trust responsibility. State agencies managing lands and water resources are required to uphold public trust in the planning, management, use and protection of resource values. As trustee to public resources, the state must consider the benefit and use of land and water resources for recreational opportunities for current and future Californians. As discussed in Chapter 2 of Volume 1, the Public Trust Doctrine recognizes recreation as one of the public trust uses that state agencies must take into account when managing tidelands and navigable waters and their tributaries.

Current Participation in Water-Dependent Recreation in California

California's temperate climate provides a long season for outdoor recreation, and water is a magnet for outdoor recreation. Figure 1 shows the percentage of Californians participating in various water-related activities. In 2002, approximately 150 million adult participation-days were spent in recreation activities that are directly dependent on water. Many more visitor-days were spent in nature-based activities such as wildlife viewing (55 million adult participation-days) and hiking (36 million adult participation-days). In addition, water-dependent activities and experiences are a large draw to tourists, helping to attract 28

million visitors in 2001. It is not surprising that many of the popular outdoor recreation activities are dependent on or enhanced by water resources.

The 2002 *Public Opinion and Attitudes on Outdoor Recreation in California* clearly shows strong support for water related activities.

- Slightly more than 80 percent of the respondents indicated that more outdoor recreation areas, such as picnic and camping sites, are needed at lakes and reservoirs.
- When asked to assign a priority score from one (extremely low priority) to ten (extremely high priority) for providing more public use opportunities at lakes and reservoirs, nearly 85 percent recorded a 5 or better and 16.7 percent gave it a ten, an extremely high priority.
- Nearly 79 percent of the respondents indicated that the availability of water features (lakes, reservoirs, rivers, and wetlands) was either very important or somewhat important factor in their overall enjoyment of their favorite outdoor recreation activity.

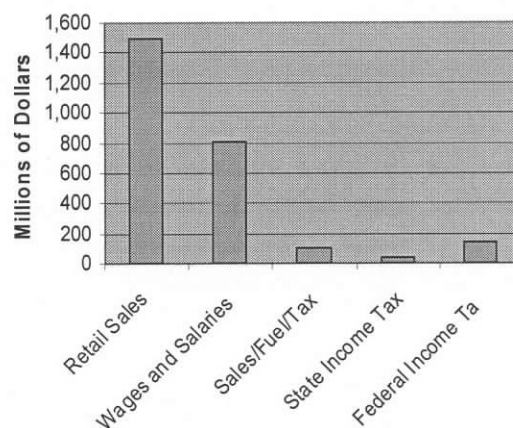
Benefits from Water-Dependent Recreation

Water-dependent recreation provides a wide range of health, social and economic benefits to California residents and visitors, while improving the quality of life. It encourages physical activity, such as swimming and paddling as well as walking and bicycling along attractive waterside trails.

Water-dependent recreation influences tourism, business and residential choices. It increases expenditures in the community for travel, food and accommodations. In 2001, California had 28 million out-of-state tourists spending an average of \$76 a day and staying an average of four days. In addition, 196 million resident tourists spent an average of \$70 a day. Sales of sportfishing licenses and stamps generated more than \$49 million in annual revenue for the Department of Fish and Game in 2001 and 2002.

Water-dependent recreation prompts long-term investments while creating jobs in concessions, hotels, restaurants, and retail stores. Figure 2 shows economic information for freshwater fishing, only a portion of all water-dependent recreation; total economic output from freshwater fishing exceeded \$3 billion.

Figure 2: 2001 Economic Impact of Freshwater Fishing in California (2,206,382 Licensed Anglers)



Data source: American Sportfishing Association

Potential Costs

Initial development costs of recreation facilities can vary with the size of the project. Generally 3 percent to 6 percent of total project costs are allocated for development of permanent recreation facilities. For example, the capital cost of recreation facilities located on the State Water Project is about 3 percent of all capital expenditures for the SWP. Annual maintenance costs are just over 3 percent of the initial development costs of recreation facilities.

Major Issues Facing Water-Dependent Recreation

There are major issues facing the provision of increased and improved water-dependent recreation opportunities in California.

Funding

Funding concerns usually transcend all other issues affecting outdoor recreation facilities, including those for water-dependent recreation. These funding issues fall into two categories: planning and development of new recreational facilities associated with water management projects, and operation and maintenance of recreational facilities once they are in place. When new water facilities are being planned and built, there may not be adequate funding to fully incorporate recreational facilities. One reason for this is that the beneficiaries of recreation facilities may be different from the other beneficiaries of the water project, requiring complex funding mechanisms to fully support recreation planning. This is a significant issue in State Water Project Planning: the Davis-Dolwig Act specifies that water users shall not be charged for the cost of recreation facilities, but other funding mechanisms have not always been made available. Maintenance of recreational facilities may be more susceptible to funding cuts during poor economic conditions than for other resources thought to be more essential. Instability of funding can reduce the effectiveness of recreation providers to deliver quality, consistent and relevant facilities and services to meet growing demand. Many park and recreation providers have taken steps to reduce programs and operating costs to become more efficient on leaner budgets by raising fees and charges, reducing or eliminating services, delaying equipment purchases, and deferring land acquisition, facility developments, rehabilitation and renovation of aging infrastructure. Inconsistent funding also makes it difficult to plan for stable services and reduces the willingness of many service providers to offer new programs or to take risks.

Impacts to Natural Resources

Natural resource values often define the character and aesthetic appeal of a water-dependent recreation area, making it desirable and interesting to visitors. Overuse, misuse and poorly planned uses of any recreation resource can have a significant impact on natural resource values and on the experiences of those wishing to enjoy them. Water management can affect the amount or timing of stream flow. This may have a beneficial or harmful effect on recreation. Water managers should consider the effects of their actions on all resource values, including recreation as well as ecosystem health. Increasing numbers of visitors pursuing outdoor recreation activities threatens the proper functioning of ecosystems, disrupts and displaces wildlife and degrades the natural, environmental and aesthetic quality of an area and ultimately the very recreational experience being sought. In addition, visitors unfamiliar with ecological processes or environmental ethics are often unaware of the consequences of their actions.

Water Quality

Poor water quality can have a negative impact on water-dependent recreation in California. Contaminated lakes, rivers and streams not only may present health risks to those participating in water-contact recreation, but they can significantly diminish the recreation experience. One source of contamination is untreated sewage escaping from treatment facilities or broken sewer lines which have led to the highly publicized closure of public beaches. Human source contamination, untreated sewage discharged from houseboats and other pleasure craft is another source of pollution that has been a significant problem in the Sacramento-San Joaquin Delta. Fertilizers and chemicals from agricultural runoff also contribute to the problem.

Coordination

Funding and impacts to natural resources are exacerbated by the lack of coordination between those who manage water resources and those who provide recreational services. All too often, agencies are limited in scope and effectiveness in recognizing and mitigating trends affecting resource conditions, particularly

outside their immediate jurisdiction. While partnerships and cooperation between agencies, organizations and individuals have grown, efforts at the watershed or landscape level are often fragmented, and opportunities are missed to achieve broader goals, placing both resources and the public at risk.

Recommendations to Help Provide Adequate Water-Dependent Recreation Opportunities

Recreation is an important strategy to be considered for water management. The following recommendations support improvements in water-dependent recreation:

1. In developing water-dependent recreation opportunities, jurisdictions should consider public needs as identified in the California Outdoor Recreation Plan.
2. Use existing data and new focused surveys to determine recreational needs that might be met by incorporating recreation more fully into new state and regional water project planning.
3. Develop closer working relationships among DWR, DFG, and DPR so that recreation planning is incorporated appropriately into CALFED program planning.
4. Conduct, and periodically re-examine, scientifically valid studies of the carrying capacity of proposed and existing sites for water-dependent recreation to help prevent degradation of water quality and wildlife habitat. Use data collected by other agencies, such as the U.S. Bureau of Reclamation, U.S. Army Corps of Engineers and for the Federal Energy Regulatory Commission (such as the results of FERC Relicensing studies).
5. Collect data on visitation rates vs. reservoir water levels and downstream flow rates, and use this data to help optimize the timing of water that is released or held for recreation.
6. Develop partnerships with universities to coordinate the monitoring of public recreation use, equipment and emerging outdoor and water-dependent recreation trends. Create partnerships with education providers to educate youth about preserving and protecting natural resources.
7. Promote and establish effective partnerships between federal agencies, state and local governments, and the private sector for operation, maintenance and law enforcement of water-dependent recreation facilities.
8. Coordinate with the Department of Fish and Game in exploring the use of funding from the Bay-Delta Sport Fishing Enhancement Stamp to integrate new and improved public angling opportunities.

Important Sources

- Multiple reports issued by the U.S. Army Corps of Engineers
- Department of Fish and Game, License and Revenue Branch, www.dfg.ca.gov
- Public Research Institute, “Survey of Boat Owners in California”
- Reports accessed at the Department of Parks and Recreation, Planning Division Library
- Department of Parks and Recreation, “Public Opinions and Attitudes on Outdoor Recreation in California 2002”, www.parks.ca.gov
- Department of Parks and Recreation, “California Outdoor Recreation Plan 2002”, www.parks.ca.gov
- American Sportfishing Association, www.asafishing.org
- California Department of Tourism, www.gocalif.ca.gov
- State Board of Forestry., California Department of Forestry and Fire Protection. “The California Fire Plan,” www.fire.ca.gov